IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Previously Presented): A method for the production of a monolithic multilayer actuator comprising a piezoceramic or electrostrictive material, with the actuator being formed as a stack arrangement in a quasi mechanical series connection of a plurality of piezoplates by sintering of green foils, existing inner electrodes in the plate stack being routed to opposite outer surfaces of the stack, where they are connected in parallel by a basic metallic coating as well as an external contact of respective electrode groups, wherein

specific microdisturbances are incorporated in the actuator structure along the longitudinal axis of the stack essentially parallel and spaced to the inner electrodes in the area of the at least two opposite outer surfaces to which the inner electrodes known per se are brought out, which at the earliest during polarisation of the actuator are subject to a pregiven, limited, stress-reducing growth into the interior of the actuator and wherein additionally the basic metallic coating and/or the external contact is formed elongation-resistant or elastic at least in the area of the microdisturbances.

Claim 2 (Previously Presented): The method according to Claim 1, wherein

the microdisturbances prevent locally limited that the green foils are sintered together.

Claim 3 (Previously Presented): The method according to Claim 2, wherein

a layer or quantity of an organic binder is applied during build-up of the stack in the area of the microdisturbances, with up to 50% by volume of organic particles with a diameter $\leq$200 nm which during the sintering process burn off nearly completely.

Claim 4 (Previously Presented): The method according to Claim 3, wherein

the layer is applied by means of screen printing, with this layer being compacted prior to sintering in such a manner that the ceramic particles embedded in the green foils contact each other only partially or not at all in order to explicitly prevent a complete or partial sintering together.

Claim 5 (Previously Presented): The method according to Claim 2, wherein

microdisturbances are formed by a quantity of inorganic filler particles with a diameter of ≤ 1 μm which do not react with the piezoelectric material of the stack, with these filler particles being added to the binder.

Claim 6 (Previously Presented): The method according to Claim 2, wherein

the microdisturbances are induced by incipient notches, which are generated either in the green or in the sintered condition, without, however, reducing the load bearing cross-sectional area of the actuator stack.

Claim 7 (Previously Presented): The method according to Claim 1, wherein

the external contact is prepared with the knowledge of the position of the incorporated or intended microdisturbances, with the external contact comprising a plane bending articulated electrode which is punctually or with portions in electrical connection with the basic metallic coating at least in the area of the microdisturbances.

Claim 8 (Previously Presented): The method according to Claim 7, wherein

the bending electrode consists of a soldered copper/beryllium strip and the strip comprises sections in the shape of open ellipses, with main axis of the respective open ellipsis extending in the area of one of the microdisturbances.

Claim 9 (Previously Presented): The method according to Claim 7, wherein

the bending electrode is designed as meander or double meander electrode, with the connecting portions of the meander extending in the area of the microdisturbances.

Claim 10 (Previously Presented): The method according to Claim 7, wherein

soldering portions or soldering pads are provided on the bending electrodes for further wiring.

Claim 11 (Previously Presented): The method according to Claim 1, wherein

electrode-free passive end layers as force coupling surfaces are applied on the stack arrangement.

Claim 12 (Previously Presented): The method according to Claim 11, wherein

the distance of the first microdisturbance to the passive end layer is selected to equal the total or half the distance of the remaining microdisturbances distributed over the longitudinal axis.

Claim 13 (Currently Amended): A monolithic multilayer actuator ~~comprising a piezoceramic or electrostrictive material, with the actuator being a stack arrangement of~~

~~piezoplates, which is provided with inner electrodes, a common basic metallic coating as well as an external contact, characterised in that~~ made by the process of Claim 1 wherein

delaminating microstructure disturbances are provided along the longitudinal axis of the stack essentially parallel to the inner electrodes, which reduce the tensile strength relative to the surrounding structure while simultaneously maintaining the compression strength of the stack.

Claim 14 (Previously Presented): The monolithic multilayer actuator according to Claim 13, comprising an elongation-resistant plane outer electrode which is connected only punctually with the basic metallic coating in the area between the delaminating microdisturbances.

Claim 15 (Previously Presented): The monolithic multilayer actuator according to Claim 14, wherein

the outer electrode is a plane structured copper/beryllium strip.

Claim 16 (Previously Presented): The monolithic multilayer actuator according to Claim 14, wherein

the outer electrode comprises the shape of a meander or a double meander with bending articulation function.

Claim 17 (Previously Presented): The monolithic multilayer actuator according to Claim 14, wherein

the outer electrode comprises the shape of a series of open ellipses with bending articulation function, with a connecting and contacting web between the ellipses extending essentially in the direction of the minor axes.

Claim 18 (Previously Presented): The monolithic multilayer actuator according to Claim 17, wherein

the main axis of the respective open ellipsis of the outer electrode essentially extends in the area of the mircrostructure disturbances.

Claim 19 (Previously Presented): The monolithic multilayer actuator according to Claim 13, wherein

electrode-free passive end layers are formed at the upper and/or lower end of the actuator.

Claim 20 (Previously Presented): The monolithic multilayer actuator according to Claim 19, wherein

the passive end layers comprise a monolithic insulating layer which carries or accommodates coupling elements.

Claim 21 (Previously Presented): An electrical external contact for a monolithic multilayer actuator comprising piezoceramic or electrostrictive material, with the actuator comprising a stack arrangement of piezoplates with inner electrodes and a basic metallic coating, wherein

the outer electrode comprises an elongation-resistant metallic strip which is only punctually connected with the basis metallic coating and which has a plurality of individual bending articulations arranged in one plane.

Claim 22 (Previously Presented): The electrical external contact according to Claim 21, wherein

the strip consists of a copper/beryllium alloy.

Claim 23 (Previously Presented): The electrical external contact according to Claim 21, wherein

the strip comprises the shape of a meander or a double meander.

Claim 24 (Previously Presented): The electrical external contact according to Claim 21, wherein

the strip consists of a series of open ellipses connected by webs, with the contact being preferably effected in the area of the webs.